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EXAMINER
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ART UNIT	PAPER NUMBER
2154	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/074,264	DAMLE ET AL.
	Examiner	Art Unit
	Ashok B. Patel	2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 September 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-37</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-37 are subject to examination.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/02/2005 has been entered.

Response to Arguments

3.   Applicant's arguments filed 09/02/ 2005 have been fully considered but they are not persuasive for the following reasons and teachings of the prior art.

Rejection of Claims under 35 U.S. C. § 102(b)

Applicant's argument:

"Applicants further assert that the Dugan disclosure is not enabled if interpreted as the Examiner has presented in the Office Actions in this matter. "The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation." MPEP 2121.01 (citing Elan Pharm., Inc. v. Mayo Found., 346 F.3d 1051, 1054 (Fed. Cir. 2003). As discussed in the previous Office Action response, Dugan does not disclose, within the detailed description of the invention or the figures, any enabling support for the cited passage in

the summary. Dugan provides no description of an input datastream being decomposed into a plurality of sub-streams as claimed; rather, Dugan provides disclosure for a large plurality of low data-rate datastreams being merged into a smaller plurality of higher data-rate datastreams. The mere statement given in Dugan's summary section is insufficient disclosure given the actual disclosure within the detailed description section of that reference. Failing to provide such an enabling disclosure, Applicants respectfully submit that it is inappropriate to use Dugan as an anticipatory reference to the presently invention as claimed.

Examiner's response:

Dugan teaches at col. 2, line 65 through col. 3, line 3," According to one aspect of the present invention, there is provided a system that reduces the effects of chromatic and polarization mode dispersion in single-mode optical fibers <u>by performing the steps of **splitting the high-speed data stream into four lower-rate streams at the transmit end** of the system or the equivalent functions thereof.</u>"

Dugan teaches at col. 3, line 3-5," The present invention sends each lower-rate stream via separate wavelength channels. Prior to transmission, the separate wavelength channels are multiplexed into one fiber."

Dugan teaches in col. 7, line 19-27," After a significant amount of the signal processing is done, **the one hundred ninety-two 51 Mb/s signals are divided into four groups, with each group containing 2.5 Gb/s worth of data, for processing into the final 10 Gb/s data stream.** The innovation here avoids combining the four groups electrically, but rather, combines them optically via WDM in the transmitter.

Likewise, at the receive end of the system, the signals are processed in four groups

following the optical receiver."

Thus, Dugan does provide disclosure of decomposing an input data stream into a

plurality of sub-streams as claimed and as such Dugan can be said to anticipate these

claims.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

5.   Claims 1, 8, 12, 13, 23, 24, and 30 are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention. The added material

which is not supported by the original disclosure is as follows indicated in **Bold** text:

Referring to claim 1,

decomposing an input datastream into a plurality of sub-streams, **wherein**

said decomposing comprises placing a selected portion of the input

datastream into a selected one of a plurality of channels, and a sub-stream of

said sub-streams comprises the selected portion of the input datastream; and

communicating said sub-streams between a first network element and a second

network element of said network by transporting each one of said sub-streams over **a**

corresponding one of a plurality of channels, wherein a bandwidth of said input

datastream is greater than a bandwidth **capacity** of any one of said channels.

Referring to claim 8,

The method of claim 1, further comprising: performing compression on a one of said

sub-streams, wherein said one of said sub-streams has a bandwidth greater than a

bandwidth capacity of the corresponding **selected** one of said channels.

Referring to claim 12,

The method of claim 1, wherein said decomposition comprises:

placing **the** portion of said input datastream in one of a plurality of queues,

wherein **the queue** corresponds to **the selected** one of said channels.

Referring to claim 13,

A method for receiving information transported over a network comprising:

receiving a plurality of sub-streams, wherein

said sub-streams are created by decomposing an input datastream into

said sub-streams, **wherein**

said decomposing comprises placing a selected portion of the input

datastream into a selected one of a plurality of channels.

and

a sub-stream of said substreams comprises the selected portion of

the input datastream.

each of said sub-streams is transported over said network on **the selected one**

of the plurality of channels, and

a bandwidth of said input datastream is greater than a bandwidth capacity

of any one of said channels; and assembling said sub-streams into a

reconstructed output datastream.

Referring to claim 23,

The method of claim 13, wherein said decomposition comprises:

placing **the selected** portion of said input datastream in one of a plurality of

queues, wherein each of said queues corresponds to a one of said **plurality of**

channels.

Referring to claim 24,

An apparatus for transporting information over a network comprising:

a first sub-stream management device, comprising

an input configured to receive an input datastream, and

a plurality of outputs, wherein

each of said outputs is configured to output one of a plurality of

sub-streams, wherein

the input datastream is decomposed to form the plurality of sub-streams,

wherein said decomposing comprises placing a selected portion of the

input datastream into a selected one of the plurality of outputs, and

a sub-stream of said sub-streams comprises the selected portion of the

input datastream,

each of said sub-streams is transported over said network on a corresponding one of a

plurality of channels, and

a bandwidth of said input datastream is greater t11a14 a bandwidth capacity of any one

of said channels.

Referring to claim 30,

An apparatus for transporting information over a network comprising:

       a first sub-stream management device, comprising

              an output configured to output a reconstructed output datastream, and

              a plurality of inputs, wherein

              each of said inputs is configured to receive one of a plurality of sub-

streams,

              said sub-streams are created by decomposing an input datastream into

said sub-streams, **wherein**

       said decomposing comprises placing a selected portion of

          the input datastream into a selected one of a

          plurality of channels, and

       a sub-stream of said sub-streams comprises the selected

          portion of the input datastream.

       each of said sub-streams is transported over said network on **the**

selected - one of **the** plurality of channels, and

       a bandwidth of said input datastream is greater than a bandwidth capacity of any

one of said channels.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –(b) the invention was patented or
> described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent
> in the United States.

7.   Claims 1-6, 9-18, 20-28 and 30-34 are rejected under 35 U.S.C. 102(b) as being

anticipated by Dugan (US 5, 710, 650)

Referring to claim 1,

The reference teaches a method for transporting information over a network comprising:

decomposing an input datastream into a plurality of sub-streams, wherein

said decomposing comprises placing a selected portion of the input datastream into a

selected one of a plurality of channels, and a sub-stream of said sub-streams comprises

the selected portion of the input datastream; (Fig. 1, Abstract," The circuitry includes

circuitry for partitioning the high data rate data stream into a plurality of lower data rate

data streams." col. 7, line 19-27," After a significant amount of the signal processing is

done, the one hundred ninety-two 51 Mb/s signals are divided into four groups, with

each group containing 2.5 Gb/s worth of data, for processing into the final 10 Gb/s data

stream. The innovation here avoids combining the four groups electrically, but rather,

combines them optically via WDM in the transmitter. Likewise, at the receive end of the

system, the signals are processed in four groups following the optical receiver." Thus

placing a placing a selected portion of the input datastream into a selected one of a

plurality of channels, and a sub-stream of said sub-streams comprises the selected

portion of the input datastream is inherent.); and

     communicating said sub-streams between a first network element and a second

network element of said network by transporting each one of said sub-streams over a

corresponding one of a plurality of channels (Fig. 1 Abstract," A wavelength division

multiplexing circuit multiplexes each of the lower data rate data streams on the plurality

of separate wavelength channels into a single optical fiber assembly to form a

multiplexed signal. The wavelength division multiplexing circuit further transmits the

multiplexed lower data rate signal along the single optical fiber assembly."), wherein

a bandwidth of said input datastream is greater than a bandwidth capacity of any one

of said channels (Fig. 1 Abstract," The circuitry includes circuitry for partitioning the

high data rate data stream into a plurality of lower data rate data streams.")

Referring to claims 2 and 14,

The reference teaches the method of claim 1, wherein each of said channels is an

optical channel (Fig. 1 Abstract," A wavelength division multiplexing circuit multiplexes

each of the lower data rate data streams on the plurality of separate wavelength

channels into a single optical fiber assembly to form a multiplexed signal. The

wavelength division multiplexing circuit further transmits the multiplexed lower data rate

signal along the single optical fiber assembly.").

Referring to claims 3 and 15,

The reference teaches the method of claim 2, wherein each of said optical channels

corresponds to a wavelength (Fig. 1 Abstract," A wavelength division multiplexing circuit

multiplexes each of the lower data rate data streams on the plurality of separate

wavelength channels into a single optical fiber assembly to form a multiplexed signal.

The wavelength division multiplexing circuit further transmits the multiplexed lower data

rate signal along the single optical fiber assembly.").

Referring to claims 4 and 16,

The reference teaches the method of claim 1, wherein said each one of said sub-

streams has a bandwidth that is equal to or less than a bandwidth capacity of a

corresponding one of said channels. (Fig. 1 Abstract," A wavelength division

multiplexing circuit multiplexes each of the lower data rate data streams on the plurality

of separate wavelength channels into a single optical fiber assembly to form a

multiplexed signal. The wavelength division multiplexing circuit further transmits the

multiplexed lower data rate signal along the single optical fiber assembly.")

Referring to claim 5,

The reference teaches the method of claim 1, further comprising: assembling said sub-

streams into a reconstructed output datastream. (col. 3, lines 13-16).

Referring to claims 6 and 17,

The reference teaches the method of claim 5, wherein said assembling comprises:

placing a portion of each of said substreams in a queue, wherein said reconstructed

output datastream is output by said queue.(Fig. 2, col. 6, lines 25-28).

Referring to claims 9, 10, 20 and 21,

The reference teaches the method of claim 1, wherein said network is an existing

network, and the method of claim 1, wherein said network comprises an underlying

network infrastructure, and the method is performed without alteration of said underlying network infrastructure. (Fig. 1 Abstract," A wavelength division multiplexing circuit multiplexes each of the lower data rate data streams on the plurality of separate wavelength channels into a single optical fiber assembly to form a multiplexed signal. The wavelength division multiplexing circuit further transmits the multiplexed lower data rate signal along the single optical fiber assembly.").

Referring to claims 11 and 22

The reference teaches the method of claim 10, wherein said network comprises a fiber-optic system. (Fig. 1 Abstract," A wavelength division multiplexing circuit multiplexes each of the lower data rate data streams on the plurality of separate wavelength channels into a single optical fiber assembly to form a multiplexed signal. The wavelength division multiplexing circuit further transmits the multiplexed lower data rate signal along the single optical fiber assembly.").

Referring to claims 12 and 23,

The reference teaches the method of claim 1, wherein said decomposition comprises: placing the portion of said input datastream in one of a plurality of queues, wherein each of said queues corresponds to a one of said channels. (Fig. 2).

Referring to claim 13,

The reference teaches a method for receiving information transported over a network comprising:

receiving a plurality of sub-streams (Fig. 2), wherein

said sub-streams are created by decomposing an input datastream into said sub-streams wherein said decomposing comprises placing a selected portion of the input datastream into a selected one of a plurality of channels, and a sub-stream of said substreams comprises the selected portion of the input datastream. (Fig. 1 Abstract," The circuitry includes circuitry for partitioning the high data rate data stream into a plurality of lower data rate data streams." ." col. 7, line 19-27," After a significant amount of the signal processing is done, the one hundred ninety-two 51 Mb/s signals are divided into four groups, with each group containing 2.5 Gb/s worth of data, for processing into the final 10 Gb/s data stream. The innovation here avoids combining the four groups electrically, but rather, combines them optically via WDM in the transmitter. Likewise, at the receive end of the system, the signals are processed in four groups following the optical receiver." Thus placing a placing a selected portion of the input datastream into a selected one of a plurality of channels, and a sub-stream of said sub-streams comprises the selected portion of the input datastream is inherent.),

each of said sub-streams is transported over said network on the corresponding one of the plurality of channels (Fig. 1 Abstract," A wavelength division multiplexing circuit multiplexes each of the lower data rate data streams on the plurality of separate wavelength channels into a single optical fiber assembly to form a multiplexed signal. The wavelength division multiplexing circuit further transmits the multiplexed lower data rate signal along the single optical fiber assembly."), and

a bandwidth of said input datastream is greater than a bandwidth capacity of any

one of said channels (Fig. 1 Abstract," The circuitry includes circuitry for partitioning the

high data rate data stream into a plurality of lower data rate data streams.")

(Fig. 1 Abstract," The circuitry includes circuitry for partitioning the high data rate data

stream into a plurality of lower data rate data streams."); and assembling said sub-

streams into a reconstructed output datastream. (col. 3, lines 13-16).

Referring to claim 18,

The reference teaches the method of claim 13, further comprising: decomposing said

input datastream into said sub-streams; and transporting said each of said sub-streams

over said network on said corresponding one of a plurality of channels. (Fig. 1 Abstract,"

The circuitry includes circuitry for partitioning the high data rate data stream into a

plurality of lower data rate data streams.", and ," A wavelength division multiplexing

circuit multiplexes each of the lower data rate data streams on the plurality of separate

wavelength channels into a single optical fiber assembly to form a multiplexed signal.

The wavelength division multiplexing circuit further transmits the multiplexed lower data

rate signal along the single optical fiber assembly.")

Referring to claim 24,

The reference teaches an apparatus for transporting information over a network

comprising: a first sub-stream management device, comprising

an input configured to receive an input datastream (Fig. 1), and

a plurality of outputs, wherein

each of said outputs is configured to output one of a plurality of

sub-streams,(Fig.1, Abstract), wherein the input datastream is

decomposed to form the plurality of sub-streams, wherein said decomposing

comprises placing a selected portion of the input datastream into a selected one

of the plurality of outputs, and

a sub-stream of said sub-streams comprises the selected portion of the

input datastream (col. 7, line 19-27," After a significant amount of the signal

processing is done, the one hundred ninety-two 51 Mb/s signals are divided into

four groups, with each group containing 2.5 Gb/s worth of data, for processing

into the final 10 Gb/s data stream. The innovation here avoids combining the

four groups electrically, but rather, combines them optically via WDM in the

transmitter. Likewise, at the receive end of the system, the signals are

processed in four groups following the optical receiver." Thus placing a placing a

selected portion of the input datastream into a selected one of a plurality of

channels, and a sub-stream of said sub-streams comprises the selected portion

of the input datastream is inherent.),

each of said sub-streams is transported over said network on a

corresponding one of a plurality of channels (Abstract), and a bandwidth of said

input datastream is greater than a bandwidth capacity of any one of said channels

(Abstract).

Referring to claims 25 and 31,

The reference teaches the apparatus of claim 24, wherein each of said channels is an

optical channel. (Abstract)

Referring to claims 26 and 32,

The reference teaches the apparatus of claim 25, wherein each of said optical channels corresponds to a wavelength. (Abstract)

Referring to claims 27 and 33,

The apparatus of claim 24, wherein said each one of said sub-streams has a bandwidth that is equal to or less than a bandwidth capacity of said corresponding one of said channels. (Abstract)

Referring to claim 28,

The reference teaches the apparatus of claim 24, further comprising a second sub-stream management device, comprising

an output configured to output a reconstructed output datastream (Fig.2), and

a plurality of inputs, wherein each of said inputs is configured to receive one of said sub-streams (Fig. 2, Abstract); and

an underlying network infrastructure, communicatively coupled to said first and said second sub-stream management devices, and comprising said channels. (Fig. 1 Abstract," A wavelength division multiplexing circuit multiplexes each of the lower data rate data streams on the plurality of separate wavelength channels into a single optical fiber assembly to form a multiplexed signal. The wavelength division multiplexing circuit further transmits the multiplexed lower data rate signal along the single optical fiber assembly.").

Referring to claim 30,

An apparatus for transporting information over a network comprising: a first sub-stream

management device, comprising

an output configured to output a reconstructed output datastream (Fig. 2,

Abstract), and

a plurality of inputs, wherein

each of said inputs is configured to receive one of a plurality of sub-streams,

said sub-streams are created by decomposing an input datastream into said sub-

streams, wherein

said decomposing comprises placing a selected portion of

the input datastream into a selected one of a

plurality of channels, and

a sub-stream of said sub-streams comprises the selected

portion of the input datastream,(col. 7, line 19-27," After a significant

amount of the signal processing is done, the one hundred ninety-two 51 Mb/s

signals are divided into four groups, with each group containing 2.5 Gb/s worth of

data, for processing into the final 10 Gb/s data stream. The innovation here

avoids combining the four groups electrically, but rather, combines them optically

via WDM in the transmitter. Likewise, at the receive end of the system, the

signals are processed in four groups following the optical receiver." Thus placing

a placing a selected portion of the input datastream into a selected one of a

plurality of channels, and a sub-stream of said sub-streams comprises the

selected portion of the input datastream is inherent.),

each of said sub-streams is transported over said network on a

corresponding one of a plurality of channels, and a bandwidth of said input

datastream is greater than a bandwidth of any one of said channels. (Fig. 1, 2,

Abstract, col. 3, lines 13-16).)

Referring to claim 34,

The reference teaches the apparatus of claim 30, further comprising

a second sub-stream management device, comprising

an input configured to receive said input datastream, and

a plurality of outputs, wherein

each of said outputs is configured to output one of said sub-

streams; and

an underlying network infrastructure, communicatively coupled to said first

and said second sub-stream management devices, and comprising said

channels. (Fig. 1,2 and Abstract).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
>
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
>
> are such that the subject matter as a whole would have been obvious at the time the invention was made to
>
> a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
>
> negatived by the manner in which the invention was made.

9.   Claims 7, 8, 19, 29 and 35 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Dugan (US 5, 710, 650) in view of Shaunfield (US 5, 867, 484)

Referring to claims 7, 8 and 19,

Keeping in mind the teachings of the reference Dugan as stated above, the

reference Dugan fails to explicitly teach performing compression on a one of said sub-

streams and performing protocol processing on said input datastream ; and performing

protocol processing on said reconstructed output datastream.

The reference Shaunfield teaches in col. 2, lines 6-20, "The low cost

compression coupled with new switching capabilities of SONET/SDH now allow a

switch base distribution system for video signals."(performing compression on a one of

said datastreams) Also, the reference teaches in col. 16, lines 38-50 "The optical bus

controller 120 includes an optical/electrical interface 150, comprising a photo detector

circuit 152 for converting the incoming optical signals on the downstream fiber 24a to

corresponding serial electrical signals on line 156. The electrical signals on the serial

data line 156 correspond identically to the optical signals on the serial downstream fiber

24a. The optical/electrical interface 150 also includes a laser driver and corresponding

circuits 154 for converting the serial electrical signals on line 158 to corresponding

optical signals on the output downstream fiber 14a. The interface 150 is of conventional

design, where the laser driver 154 includes temperature, aging and other compensation

circuits well known in the art." (performing protocol processing on said datastream ; and

performing protocol processing on said reconstructed datastream.)

Therefore, it would have been obvious for one having ordinary skill in the art at

the time the invention was made to employ the technique and the means of Shaunfield

to the system of Dugan such that the datastream can be compressed and the electrical

datastream be converted to optical datastream for transmission on optical fiber and

optical reconstructed datastream be converted to electrical datastream. It would have

been obvious for the reasons that are already taught by the reference along with the

teachings.

Referring to claims 29 and 35,

Keeping in mind the teachings of the reference Dugan as stated above, the reference

Dugan fails to explicitly teach a first protocol processor, coupled to said input; and

a second protocol processor, coupled to said output.

The reference Shaunfield teaches in col. 16, lines 38-50 "The optical bus

controller 120 includes an optical/electrical interface 150, comprising a photo detector

circuit 152 for converting the incoming optical signals on the downstream fiber 24a to

corresponding serial electrical signals on line 156. The electrical signals on the serial

data line 156 correspond identically to the optical signals on the serial downstream fiber

24a. The optical/electrical interface 150 also includes a laser driver and corresponding

circuits 154 for converting the serial electrical signals on line 158 to corresponding

optical signals on the output downstream fiber 14a. The interface 150 is of conventional

design, where the laser driver 154 includes temperature, aging and other compensation

circuits well known in the art." (performing protocol processing on said datastream ; and

performing protocol processing on said reconstructed datastream.)

Therefore, it would have been obvious for one having ordinary skill in the art at

the time the invention was made to employ the technique and the means of Shaunfield

to the system of Dugan such that the datastream can be compressed and the electrical

datastream be converted to optical datastream for transmission on optical fiber and

optical reconstructed datastream be converted to electrical datastream. It would have

been obvious for the reasons that are already taught by the reference along with the

teachings.

10.   Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Dugan (US 5, 710, 650) in view of Muller et al. (hereinafter Muller) (US 6, 873,

630)

Referring to claim 36,

Keeping in mind the teachings of Dugan, Dugan fails to teach method of Claim 1

wherein selecting the selected one of a plurality of channels comprises: using a simple

round-robin technique to choose an available one of the plurality of channels.

Muller teaches in col. 2, line 37-47, "In one embodiment of the invention the

communication is divided for transmission across multiple channels at a point below the

Medium Access Control (MAC) layer of operation. Thus, in this embodiment the

individual bytes of each frame, or packet, of the communication are separated and sent

across one of the channels in a round-robin fashion. The transmission rate of the

communication across the Ethernet network thus approximates the sum of the rates of

each channel. In one particular embodiment of the invention four logical channels are

employed, each operating at approximately 2.5 Gbps, in order to sustain a transfer rate

of 10 Gbps for a communication."

Therefore, it would have been obvious for one having ordinary skill in the art at

the time the invention was made to employ the technique and the means of Muller into

the system of Dugan such that the individual bytes of each frame, or packet, of the

communication are separated and sent across one of the channels in a round-robin

fashion. The transmission rate of the communication across the Ethernet network thus

approximates the sum of the rates of each channel. In one particular embodiment of

Dugan four logical channels are employed, each operating at approximately 2.5 Gbps,

in order to sustain a transfer rate of 10 Gbps for a communication as taught by Muller.

Referring to claim 37,

Keeping in mind the teachings of Dugan, Dugan fails to teach method of Claim

24 wherein selecting the selected one of a plurality of channels comprises: using a

simple round-robin technique to choose an available one of the plurality of channels.

Muller teaches in col. 2, line 37-47, In one embodiment of the invention the

communication is divided for transmission across multiple channels at a point below the

Medium Access Control (MAC) layer of operation. Thus, in this embodiment the

individual bytes of each frame, or packet, of the communication are separated and sent

across one of the channels in a round-robin fashion. The transmission rate of the

communication across the Ethernet network thus approximates the sum of the rates of

each channel. In one particular embodiment of the invention four logical channels are

employed, each operating at approximately 2.5 Gbps, in order to sustain a transfer rate

of 10 Gbps for a communication."

Therefore, it would have been obvious for one having ordinary skill in the art at

the time the invention was made to employ the technique and the means of Muller into

the system of Dugan such that the individual bytes of each frame, or packet, of the

communication are separated and sent across one of the channels in a round-robin

fashion. The transmission rate of the communication across the Ethernet network thus

approximates the sum of the rates of each channel. In one particular embodiment of

Dugan four logical channels are employed, each operating at approximately 2.5 Gbps,

in order to sustain a transfer rate of 10 Gbps for a communication as taught by Muller.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the

references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are

applied to the specific limitations within the individual claim, other passages and figures

may apply as well. It is respectfully requested from the applicant in preparing responses,

to fully consider the references in entirety as potentially teaching all or part of the

claimed invention, as well as the context of the passage as taught by the prior art or
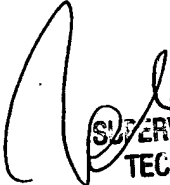
disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-

3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

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Abp
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